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SIDE DELIVERY TAPE APPLICATOR

Walter Wagner, Dumont, N.J. 07628

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ABSTRACT OF THE DISCLOSURE

A roll of tape is mounted on a carriage and tape is drawn off and applied laterally of the carriage to one surface by moving the carriage over an adjoining angularly related surface, and, where possible, with the carriage wheels riding on the said adjoining surface. The roll of tape is mounted on the carriage in a plane parallel with the surface over which the carriage is moved, and means are provided for adjusting the position of the roll of tape toward and away from the wall over which the carriage is moved to compensate for differences in the width of rolls of tape and to bring a side surface of the tape roll close to the wall so that the tape will be applied with an edge close to that wall. Cut off means is disposed relative to guide and applicator means so that the tape may be drawn back against the cut off means and cut off where desired, as by stopping rotation of the tape roll while the carriage is moving. The guide is provided with means to limit lateral movement of the tape even if the tape roll wobbles on its mount. The applicator is positioned relative to the tape roll so that pressure is exerted chiefly along the inner edge of a length of tape being applied.

FIELD OF THE INVENTION

This invention relates to a device adapted primarily for applying tape to one surface by moving it over an adjacent angularly related surface. While it has many useful applications, its use is particularly contemplated for placing a strip of masking tape along one surface in substantially abutting relation to another, angularly related, surface. It is particularly useful in preparing for painting a wall or ceiling of a room by placing a strip of masking tape along the adjacent edge of the adjoining wall, walls, ceiling, floor or carpet. An advantage of the device is that it is able to guide and dispense a length of masking tape onto one wall at a corner of the room in close abutting relation to an adjoining wall. The adjustable wheel mountings compensate for differences in width of the tape and insure that the inner edge of the tape will be applied in abutting relation to an adjoining surface.

While the device disclosed herein is a carriage comprising a frame mounted on wheels for moving the device over one wall while it is applying tape on to another angularly related wall, the device may also be used without contact between the wheels and a wall. For example, if it is desired to paint a baseboard molding of a room which has wall to wall carpeting, the device may be employed to apply tape over the edge of the carpet adjoining the molding even though the molding will prevent the wheels of the device from contacting and riding on the adjacent side wall.

The guide means employed and the adjustable position of the pressure roll relative to the plane of the tape roll prevent lateral displacement of the tape and cause it to adhere chiefly along its inner edge. In the case of applying tape to a carpet adjacent a baseboard molding, it will be found that the near edge of the tape will be turned down between the carpet and the molding while the outer edge of the tape, remote from the molding, may be substantially free or only lightly adhering to the surface of the carpet. This result is accomplished by the adjustable offset position of the pressure roll relative to the tape roll.

The word "wall" is used broadly herein and it will be understood that the applicator disclosed herein may be used for masking not only side walls and ceilings and floors but also window glass, and a floor or carpet as when painting baseboards.

SUMMARY OF THE DISCLOSURE

A frame is provided, which may be T shaped and has wheels on which it may be moved over a wall surface. At each end of the cross bar of the frame a guide roll and an applicator or pressure roll are mounted. A roll of tape may be mounted under the frame so that it will deliver either to the right or left hand of a person using the device. Adjacent each combination of a guide roll and an applicator roll is a tape cutter disposed close to the periphery of a tape roll mounted under the frame. The cutter is spaced inwardly from the path followed by the tape while the tape roll is rotating and the tape is being unwound and applied to a wall surface. But the tape may be pushed against the cutter, or drawn back against cutter, and cut off by stopping rotation of the tape roll while the applicator is moving or by rotating the tape roll in reverse.

The rolls comprising each combination of a guide roll and a pressure roll coact in advancing the tape but they are not necessarily exactly aligned. Each guide roll preferably has an abutment along one side which is effective in preventing the unwinding tape from moving laterally, as for example away from the corner or interface with an adjoining angularly related surface, even if the roll of tape being used tends to wobble on its mounting. The width of the pressure roll is preferably less than the width of the tape being applied and the position of the pressure roll is adjustable toward and away from the frame to cause the center line of the pressure roll to be slightly offset relative to the center line of the tape roll so that the applying pressure is exerted chiefly along the inner edge of the tape leaving the outer edge of the tape free or only lightly adhering to the surface to which it is applied, which result not only facilitates removal of the tape but also helps to prevent damage to the surface when the tape is removed.

The wheel mountings are adjustable toward and away from the frame to compensate for differences in the width of rolls of tape so that the roll of tape may be supported as close as possible to a wall over which the device is moved on the said wheels and so that the tape delivered laterally of the device will be applied to one wall with its edge substantially touching an angularly related wall.

The invention will best be understood by reference to the accompanying drawings in which,

FIG. 1 is an end view of an embodiment of the invention,

FIG. 2 is a bottom plan view,

FIG. 3 is a side elevation,

FIG. 4 is a cross section taken on the lines 4—4 of FIG. 2,

FIG. 5 is a detail cross sectional view taken on the lines 5—5 of FIG. 2,

FIG. 6 is a detail cross sectional view taken on the lines 6—6 of FIG. 2,

FIG. 7 is a front view of the device showing tape being applied to a ceiling while the applicator is being moved toward the viewer over a side wall, with the ceiling and side being indicated in cross section,

FIG. 8 is an enlarged view of a portion of FIG. 7 showing a pressure roll pressing a length of masking tape, as it is unwound from the tape roll, along a ceiling in close proximity to a side wall on which the wheels of the applicator are traveling,